

AMENDMENT TO THE CLAIMS

1. (Previously Presented) A suspension assembly comprising a suspension, a slider, and a suspension interface comprising a pivot and a pivot socket, wherein the pivot is rotatably engaged with the pivot socket, wherein the suspension interface provides substantial freedom of rotation of the slider about a yaw axis relative to the suspension.
2. (Previously presented) The suspension assembly of claim 1, wherein the slider is enabled to rotate to reduce a skew angle of the slider relative to an ambient fluid flow.
3. (Original) The suspension assembly of claim 2, further comprising an aerodynamic surface, disposed on the slider, wherein the aerodynamic surface is configured such that the ambient fluid flow at the skew angle causes a torque on the slider.
4. (Original) The suspension assembly of claim 3, wherein the aerodynamic surface comprises a vertical stabilizer.
5. (Original) The suspension assembly of claim 4, wherein the aerodynamic surface comprises a longitudinal centerline, and the vertical stabilizer comprises a first sweepback surface disposed on a first side of the longitudinal centerline.
6. (Original) The suspension assembly of claim 5, wherein the first sweepback surface has a sweepback angle of from ten to eighty degrees, defined relative to a lateral direction.
7. (Original) The suspension assembly of claim 5, wherein the first sweepback surface is disposed on a first side of a trailing step comprised in the aerodynamic surface.

8. (Original) The suspension assembly of claim 5, wherein a second sweepback surface is disposed in substantially symmetric opposition to the first sweepback surface about the longitudinal centerline.

9. (Original) The suspension assembly of claim 4, wherein the vertical stabilizer comprises a substantially longitudinal fin.

10. (Original) The suspension assembly of claim 3, wherein the aerodynamic surface comprises a first sweepback surface disposed on a first lateral side of the slider.

11. (Original) The suspension assembly of claim 10, further comprising a second aerodynamic surface comprising a second sweepback surface disposed on a second lateral side of the slider opposite the first lateral side about a longitudinal axis of the slider.

12. (Original) The suspension assembly of claim 2, wherein the slider comprises a shape configured such that the ambient fluid flow at the skew angle causes a torque on the slider.

13. (Previously presented) The suspension assembly of claim 1, wherein the suspension interface further comprises an active control mechanism.

14. (Previously presented) The suspension assembly of claim 13, wherein the active control mechanism comprises a conductive coil disposed opposite a magnet.

15-16. (Canceled)

17. (Previously presented) The suspension assembly of claim 1, wherein the suspension interface comprises a swivel.

18. (Previously presented) The suspension assembly of claim 1, wherein the suspension interface comprises a dial.

19. (Previously presented) The suspension assembly of claim 1, wherein the suspension interface comprises a load recess, capable of receiving a load point button comprised in the suspension.

20. (Previously presented) The suspension assembly of claim 19, wherein the load recess comprises a recess track, wherein the load point button is enabled to slide along the load recess track.

21. (Previously presented) The suspension assembly of claim 1, wherein the suspension interface comprises a load point button, adapted to be in contact with a load point recess positioned on the suspension.

22. (Previously presented) The suspension assembly of claim 1, wherein a portion of the suspension interface is composed of sapphire, ruby, glass, or diamond-like carbon (DLC).

23. (Previously presented) The suspension assembly of claim 1, wherein the suspension interface comprises a rotation limiter that prevents the slider from rotating beyond a limit angle.

24. (Original) The suspension assembly of claim 1, further comprising a data interface head disposed on the slider.

25. (Original) The suspension assembly of claim 24, wherein the data interface head is a magnetoresistive head adapted for perpendicular recording.

26. (Original) The suspension assembly of claim 24, wherein the data interface head is a magnetoresistive head adapted for longitudinal recording.

27. (Previously Presented) A slider, comprising:

means for operatively suspending the slider from a suspension, the means comprising a pivot and a pivot socket, wherein the pivot is rotatably engaged with the pivot socket, wherein the means provides substantial freedom of rotation of the slider about a yaw axis; and

means for exploiting an ambient fluid flow to reduce a skew angle of the slider relative to the ambient fluid flow.

28. (Previously presented) The slider of claim 27, further comprising means for enabling the slider to rotate to reduce the skew angle of the slider relative to the ambient fluid flow.

29. (Currently Amended) The slider of claim 27, wherein the means for operatively suspending the slider from a suspension further comprises a pivot, a pivot socket, a swivel, or a dial.

30. (Original) The slider of claim 27, wherein the means for exploiting the ambient fluid flow comprises an aerodynamic surface, on any face of the slider, adapted to use the ambient fluid flow at the skew angle to cause a torque on the slider.

31. (Original) The slider of claim 27, wherein the means for exploiting the ambient fluid flow comprises a vertical stabilizer.

32. (Original) The slider of claim 31, wherein the vertical stabilizer comprises a left sweepback surface and a right sweepback surface, disposed substantially opposite each other about a longitudinal centerline of the vertical stabilizer.

33. (Previously presented) A suspension assembly comprising:

a suspension, comprising a slider interface component; and

a slider comprising:

an aerodynamic surface; and

a back surface that comprises a suspension interface component, wherefrom the slider is operatively suspended from the slider interface component of the suspension, providing the slider with substantial freedom of yaw rotation, whereby the aerodynamic surface is adapted to translate a force of an ambient air flow at a skew angle relative to the slider into a torque about the suspension interface which minimizes the skew angle.

34. (Previously presented) The suspension assembly of claim 33, wherein the slider interface component and the suspension interface component are comprised in a suspension interface.

35. (Previously presented) The suspension assembly of claim 34, wherein the suspension interface comprises a pivot joint, which comprises a pivot and a pivot socket configured to receive the pivot.

36. (Previously presented) The suspension assembly of claim 34, wherein the suspension interface comprises a swivel.

37. (Previously presented) The suspension assembly of claim 34, wherein the suspension interface comprises a dial.

38. (Previously presented) The suspension assembly of claim 34, wherein the suspension interface comprises a load point button and a load recess track configured to receive the load point button.

39. (Previously presented) The suspension assembly of claim 33, wherein the aerodynamic surface is opposite to the back surface.

40. (Previously presented) The suspension assembly of claim 33, wherein the aerodynamic surface is lateral to the back surface.